

Amendments To The Claims

The listing of claims replaces all prior versions and listings of claims in the application. The listing of claims present each claim with its respective status shown in parentheses. Only those claims being amended herein show their changes in highlighted form, i.e., insertions appear as underlined text (e.g., insertions) while deletions appear as strikethrough text (e.g., ~~deletions~~). All previously amended claims appear as clean text.

Claims 1. – 41. (Cancelled).

Claim 42. (New) A system for monitoring a physiological parameter of a patient, the system comprising:

- a physiological sensor operable to detect a physiological parameter, the physiological sensor comprising LED circuitry, which operates in response to a drive signal on a drive signal line, and an information element operable to provide information data on the drive signal line; and

- a physiological monitor, which provides the drive signal and receives the information data from the information element; and

- a connector, operable to provide communication between the information element and the signal line.

Claim 43. (New) The system of Claim Claim 42, wherein the LED circuitry is in communication with the signal line.

Claim 44. (New) The system of Claim Claim 42, further comprising a timing signal, wherein the LED circuitry is in communication with the signal line in response to the timing signal.

Claim 45. (New) The system of Claim Claim 42, further comprising:

- a threshold, wherein the drive signal is greater than the threshold; and
- a probe signal, wherein the probe signal is less than the threshold.

Claim 46. (New) The system of Claim Claim 45, wherein the threshold comprises a voltage.

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Claim 47. (New) The system of Claim Claim 45, wherein the drive signal comprises a voltage.

Claim 48. (New) The system of Claim Claim 45, wherein the probe signal comprises a voltage.

Claim 49. (New) The system of Claim Claim 42, further comprising:
a processor, wherein the processor is in communication with the signal line, and wherein the processor provides the drive signal in response to the information data.

Claim 50. (New) A physiological monitor for monitoring a physiological parameter of a patient, the physiological monitor comprising:
a processor operable to provide a drive signal in response to information data;
a signal line on which the drive signal is provided and on which the information data is received; and
a connector, wherein the connector is in communication with the processor and the signal line.

Claim 51. (New) The physiological monitor of Claim Claim 50, wherein the drive signal comprises an LED drive signal.

Claim 52. (New) The physiological monitor of Claim Claim 50, further comprising:
a timing signal, wherein the drive signal comprises an LED drive signal, and the LED drive signal is in communication with the signal line in response to the timing signal.

Claim 53. (New) The physiological monitor of Claim Claim 50, further comprising:
a threshold, wherein the drive signal is greater than the threshold; and

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a probe signal, wherein the probe signal is less than the threshold.

Claim 54. (New) The physiological monitor of Claim Claim 53, wherein the threshold comprises a voltage.

Claim 55. (New) The physiological monitor of Claim Claim 53, wherein the drive signal comprises a voltage.

Claim 56. (New) The physiological monitor of Claim Claim 53, wherein the probe signal comprises a voltage.

Claim 57. (New) A physiological sensor which provides information to a physiological monitor in addition to at least one physiological signal usable to determine a physiological parameter of a patient, the physiological sensor comprising:

a signal line which receives at least one LED drive signal; and

an information element in communication with the at least one LED drive signal to provide information to a physiological monitor.

Claim 58. (New) The physiological sensor of Claim Claim 57, wherein during a time when the signal line receives the at least one LED drive signal at a level sufficient to drive at least one LED, the information element effectively ceases to provide information to the physiological monitor.

Claim 59. (New) The physiological sensor of Claim Claim 57, wherein during a time when the information element provides information to the physiological monitor, the signal line does not receive the at least one LED drive signal at a level sufficient to drive at least one LED.

Claim 60. (New) The physiological sensor of Claim Claim 57, wherein the at least one LED drive signal comprises a voltage signal.

Claim 61. (New) The physiological sensor of Claim Claim 57, wherein the information element comprises a passive element.

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Claim 62. (New) The physiological sensor of Claim Claim 61, wherein the passive element comprises a coding resistor.

Claim 63. (New) The physiological sensor of Claim Claim 62, wherein the coding resistor comprises an impedance device.

Claim 64. (New) The physiological sensor of Claim Claim 57, wherein the information element comprises an active element.

Claim 65. (New) The physiological sensor of Claim Claim 57, wherein the information element comprises an active circuit.

Claim 66. (New) The physiological sensor of Claim Claim 57, wherein the information element comprises a memory chip.

Claim 67. (New) The physiological sensor of Claim Claim 57, wherein the information element comprises an identification device.

Claim 68. (New) The physiological sensor of Claim Claim 57, wherein the information element comprises an encrypted element.

Claim 69. (New) The physiological sensor of Claim Claim 57, wherein the information provided by the information element is usable to identify a type of probe.

Claim 70. (New) The physiological sensor of Claim Claim 69, wherein the type of probe comprises at least one of an adult probe, a pediatric probe, a neonatal probe, a disposable probe, and a reusable probe.

Claim 71. (New) The physiological sensor of Claim Claim 57, wherein the information provided by the information element is usable to identify a type of patient.

Claim 72. (New) The physiological sensor of Claim Claim 57, wherein the type of patient includes an indication of a condition of the patient.

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Claim 73. (New) The physiological sensor of Claim Claim 57, wherein the information provided by the information element is usable to determine characteristics of the LED drive signal.

Claim 74. (New) The physiological sensor of Claim Claim 73, wherein the characteristics include at least one operating wavelength of at least one LED.

Claim 75. (New) The physiological sensor of Claim Claim 57, wherein the at least one LED drive signal is greater than a threshold, and the signal line receives a probe signal, wherein the probe signal is less than the threshold.

Claim 76. (New) The physiological sensor of Claim Claim 75, wherein the threshold comprises a voltage signal.

Claim 77. (New) The physiological sensor of Claim Claim 75, wherein the probe signal comprises a voltage signal.

Claim 78. (New) A method of communicating with a physiological monitor, wherein said physiological monitor comprises a signal line on which the physiological monitor provides a drive signal and on which the physiological monitor receives information data from an information element, wherein said method comprises the step of providing an information element in communication with a signal line.

Claim 79. (New) The method of Claim Claim 78, further comprising the step of providing LED circuitry in communication with the signal line.

Claim 80. (New) The method of Claim Claim 78, wherein said signal line is in communication with LED circuitry and said information element in response to a timing signal, said method further comprising the step of providing the LED circuitry in communication with the signal line.

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Claim 81. (New) The method of Claim Claim 78, wherein said drive signal comprises a signal greater than a threshold, and said signal line further provides a probe signal, said probe signal comprising a voltage less than the threshold, said method further comprising the steps of:

receiving a drive signal; and
receiving a probe signal.

Claim 82. (New) The method of Claim Claim 78, wherein said physiological monitor further comprises a processor in communication with said signal line, said processor providing said drive signal in response to said information data, said method further comprising the step of receiving a drive signal.